

AMENDMENTS TO THE CLAIMS

Please cancel Claims 1-7; and amend Claims 8, 10, 12, 14, 16, 19, 22, 24, 26, 28, 30, 33, 36, 38, 42, 44, 47, 50, 52, 56, 58 and 61 as follows.

LISTING OF CLAIMS

1.-7. (cancelled)

8. (currently amended) A method of determining position information for a mobile station in a wireless information system comprising:

collecting a plurality of pilot pseudo noise offsets; [[and]]

identifying a base station for each of the plurality of pilot pseudo noise offsets ~~by evaluating that said identification is consistent relative to the other pilot pseudo noise offsets. ; and~~

evaluating the probability that two or more base stations identified using respective pilot pseudo noise offset measurements are within range and have a pilot signal receivable by a mobile station concurrently, thereby confirming a valid identification of the two or more base stations.

9. (original) The method of Claim 8, further comprising ranking each pilot pseudo noise offset.

10. (currently amended) The method of Claim 9, wherein said ranking of each pilot pseudo noise offset uses a parameter selected from [[the]] a group consisting of pilot pseudo noise phase, pilot energy, and ratio of pilot chip energy to interference.

11. (original) The method of Claim 8, further comprising solving for the position information using the base station identities.

12. (currently amended) The method of Claim 8, wherein said ~~evaluating that said identification is consistent relative to the other pilot pseudo noise offsets~~ evaluating the probability that two or more base stations identified using respective pilot pseudo noise offset measurements are within range and have a pilot signal receivable by a mobile station concurrently, thereby confirming a valid identification of the two or more base stations further comprises searching a database for all base stations having a pilot pseudo noise offset equal to a first pilot pseudo noise offset in said plurality of pilot pseudo noise offsets to form a first list.

13. (original) The method of Claim 12, further comprising searching the database for all base stations with a pilot pseudo noise offset equal to a second pilot pseudo noise offset in said plurality of pilot pseudo noise offsets to form a second list.

14. (currently amended) The method of Claim 13, further comprising calculating ~~[[the]]~~ a distance from each base station in said first list to each base station in said second list.

15. (original) The method of Claim 14, further comprising modifying the distances by a weighting factor.

16. (currently amended) The method of ~~[[claim]]~~ Claim 15, wherein said weighting factor is selected from ~~[[the]]~~ a group consisting of said distance, a pilot pseudo noise offset weighting factor, a phase offset, and a sector antenna angle.

17. (original) The method of Claim 13, further comprising comparing distances between base stations in said base station lists.

18. (original) The method of Claim 13, further comprising weighting the entries in the base station lists.

19. (currently amended) The method of Claim 13, wherein said database is located in the memory of ~~[[an]]~~ a network entity selected from ~~[[the]]~~ a group consisting of said mobile station, a base station, a server, and a position determination entity.

20. (original) The method of Claim 8, further comprising solving for the position of the mobile station.

21. (original) The method of Claim 8, further comprising averaging the base station locations.

22. (currently amended) A method of determining position information for a mobile station in a wireless information system comprising:

collecting a plurality of parameters related to identification of network entities; [[and]]

identifying a network entity for each of the plurality of parameters by ~~evaluating that said identification is consistent relative to the other parameters;~~ and

evaluating the probability that two or more base stations identified using respective pilot pseudo noise offset measurements are within range and have a pilot signal receivable by a mobile station concurrently, thereby confirming a valid identification of the two or more base stations.

23. (original) The method of Claim 22, further comprising ranking each parameter.

24. (currently amended) The method of Claim 23, wherein said parameter is selected from [[the]] a group consisting of pilot pseudo noise phase and pilot pseudo noise offset.

25. (original) The method of Claim 22 further comprising solving for the position information using the identification information.

26. (currently amended) The method of Claim 22, wherein said ~~evaluating that said identification is consistent relative to the other parameters~~ evaluating the probability that two or more base stations identified using respective pilot pseudo noise offset measurements are within range and have a pilot signal receivable by a mobile

station concurrently, thereby confirming a valid identification of the two or more base stations further comprises searching a database for all network entities having a parameter equal to a first parameter in said plurality of parameters to form a first list.

27. (original) The method of Claim 26, further comprising searching the database for all network entities with a parameter equal to a second parameter in said plurality of parameters to form a second list.

28. (currently amended) The method of Claim 27, further comprising calculating [[the]] a distance from each network entity in said first list to each network entity in said second list.

29. (original) The method of Claim 28, further comprising modifying the distance by a weighting factor.

30. (currently amended) The method of [[claim]] Claim 29, wherein said weighting factor is selected from [[the]] a group consisting of said distance, a pilot pseudo noise offset weighting factor, a phase offset, and a sector antenna angle.

31. (original) The method of Claim 27, further comprising comparing distances between network entities in said network entity lists.

32. (original) The method of Claim 27, further comprising weighting the entries in the network entity lists.

33. (currently amended) The method of Claim 27, wherein said database is located in the memory of a network entity selected from ~~[[the]]~~ a group consisting of said mobile station, said network entity, a base station transceiver, a base station controller, a server, and a position determination entity.

34. (original) The method of Claim 22, further comprising solving for the position of the mobile station.

35. (original) The method of Claim 22, further comprising averaging the network entity locations.

36. (currently amended) A mobile station position locator in a wireless information system comprising:

memory which collects a plurality of pilot pseudo noise offsets; and

a processor which identifies a base station for each of the plurality of pilot pseudo noise offsets by evaluating ~~that said identification is consistent relative to the other pilot pseudo noise offsets.~~ the probability that two or more base stations identified using respective pilot pseudo noise offset measurements are within range and have a pilot signal receivable by a mobile station concurrently, thereby confirming a valid identification of the two or more base stations.

37. (original) The mobile station position locator of Claim 36, further comprising ranking each pilot pseudo noise offset.

38. (currently amended) The mobile station position locator of Claim 37, wherein said ranking of each pilot pseudo noise offset uses a parameter selected from ~~[[the]]~~ a group consisting of pilot pseudo noise phase, pilot energy, and ratio of pilot chip energy to interference.

39. (original) The mobile station position locator of Claim 36, further comprising software which solves for the position information using the base station identities.

40. (original) The mobile station position locator of Claim 36, wherein the processor further searches a database for all base stations having a pilot pseudo noise offset equal to a first pilot pseudo noise offset in said plurality of pilot pseudo noise offsets to form a first list.

41. (original) The mobile station position locator of Claim 40, wherein the database is searched for all base stations with a pilot pseudo noise offset equal to a second pilot pseudo noises offset in said plurality of pilot pseudo noise offsets to form a second list.

42. (currently amended) The mobile station position locator of Claim 41, wherein ~~[[the]]~~ a distance is calculated from each base station in said first list to each base station in said second list.

43. (original) The mobile station position locator of Claim 42, wherein the distances are modified by a weighting factor.

44. (currently amended) The mobile station position locator of Claim 43, wherein said weighting factor is selected from ~~[[the]]~~ a group consisting of said distance, a pilot pseudo noise offset weighting factor, a phase offset, and a sector antenna angle.

45. (original) The mobile station position locator of Claim 41, wherein the processor compares distances between base stations in said base station lists.

46. (original) The mobile station position locator of Claim 41, wherein the processor weights the entries in the base station lists.

47. (currently amended) The mobile station position locator of Claim 41, wherein said database is located in the memory of ~~[[an]]~~ a network entity selected from ~~[[the]]~~ a group consisting of said mobile station, a base station, a server, and a position determination entity.

48. (original) The mobile station position locator of Claim 36, wherein the processor solves for the position of the mobile station.

49. (original) The mobile station position locator of Claim 36, wherein the processor averages the base station locations.

50. (currently amended) A mobile station which determines position information in a wireless information system comprising:

storage elements which collect a plurality of parameters related to identification of network entities; and

a processor which identifies a network entity for each of the plurality of parameters by evaluating ~~that said identification is consistent relative to the other parameters.~~ the probability that two or more base stations identified using respective pilot pseudo noise offset measurements are within range and have a pilot signal receivable by a mobile station concurrently, thereby confirming a valid identification of the two or more base stations.

51. (original) The mobile station of Claim 50, wherein the processor ranks each parameter.

52. (currently amended) The mobile station of Claim 51, wherein said parameter is selected from ~~[[the]]~~ a group consisting of pilot pseudo noise phase and pilot pseudo noise offset.

53. (original) The mobile station of Claim 50, wherein the processor solves for the position information using the identification information.

54. (original) The mobile station of Claim 50, wherein the processor searches a database for all network entities having a parameter equal to a first parameter in said plurality of parameters to form a first list.

55. (original) The mobile station of Claim 54, wherein the processor searches the database for all network entities with a parameter equal to a second parameter in said plurality of parameters to form a second list.

56. (currently amended) The mobile station of Claim 55, wherein the processor calculates a distance from each network entity in said first list to each network entity in said second list.

57. (original) The mobile station of Claim 56, wherein the processor modifies the distances by a weighting factor.

58. (currently amended) The mobile station of Claim 57, wherein said weighting factor is selected from a group consisting of said distance, a pilot pseudo noise offset weighting factor, a phase offset, and a sector antenna angle.

59. (original) The mobile station of Claim 55, wherein the processor compares distances between network entities in said network entity lists.

60. (original) The mobile station of Claim 55, wherein the processor weights the entries in the network entity lists.

61. (currently amended) The mobile station of Claim 55, wherein said database is located in the memory of a network entity selected from ~~[[the]]~~ a group consisting of said mobile station, said network entity, a base station transceiver, a base station controller, a server, and a position determination entity.

62. (original) The mobile station of Claim 50, wherein the processor solves for the position of the mobile station.

63. (original) The mobile station of Claim 50, wherein the processor averages the network entity locations.